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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,201	07/23/2003	Shi-Feng Shao	USP2181C-DRSH	2701
30265	7590	06/08/2005	EXAMINER	
RAYMOND Y. CHAN 108 N. YNEZ AVE., SUITE 128 MONTEREY PARK, CA 91754			WRIGHT, INGRID D	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/627,201	Applicant(s) SHAO, SHI-FENG	
	Examiner Ingrid Wright	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7-23-2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☒ Claim(s) 1-3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/6/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Abstract

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

With respect to the Abstract, "means" is cited on line 5 and 7.

Claim Objections

2. Claims 1-3 are objected to because of the following informalities:

On line 6 of claim 1, there is an grammatical and typographical error regarding the disclosure. The disclosure, "said heating dissipating surface" should be rewritten as, "said heat dissipating surface," as it is the same entity cited on line 5 of claim 1.

3. On line 13 of claim 1, there is a grammatical and typographical error regarding the disclosure. The disclosure, "said dissipating member" should be rewritten as, "said heat dissipating member," as it is the same entity cited on line 2 of claim 1.

4. On line 20-21 of claim 2, there is a grammatical and typographical error regarding the disclosure. The disclosure, "said another engaging arm," should be rewritten as, "another said engaging arm," as it is the same entity cited on line 18 of claim 2.

5. On line 25 of claim 3, there is a grammatical and typographical error regarding the disclosure. The disclosure, "said corresponding engaging arm," should be rewritten as, "corresponding said engaging arm," as it is the same entity cited on line 8 of claim 1.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (US PN 6382307 B1) in view of Lee (US PN 6619381 B1).

With respect to claim 1, Wang et al. teaches (Fig. 2,3) a heat dissipating arrangement for a computer, comprising at least two heat dissipating members (2) adapted for installing into said computer for dissipating heat therefrom, wherein each of said heat dissipating members (2) comprises: a plate body defining a heat dissipating surface and a peripheral edge; at least a heat guiding channel (3,4) integrally protruded from said heating dissipating surface of said plate body; at least an engaging arm; engaging arm of said heat dissipating member (2) is substantially engaged with a portion of another said heat dissipating member (2) in such a manner that said heat dissipating members are communicatively mounted side by side while said heat dissipating surfaces of said heat dissipating members (2) are spaced apart between said heat guiding channel (3,4) for dissipating said heat from said computer.

Wang et al. does not teach engaging arms having a narrowed root portion outwardly extended from said plate body and an engaging head portion extending from said root portion, wherein said engaging arm of each of said heat dissipating members is adapted to fold downwardly.

Lee teaches (Fig. 2) engaging arms (13,14) having a narrowed root portion outwardly extended from a plate body (10) of a heat dissipating member and an engaging head portion (130,140), extending from said root portion, wherein said engaging arms (13,14) are adapted to fold downwardly, in order to engage the root portion of an arm of another heat dissipating member. (See Fig. 1)

It would have been obvious to a person of ordinary skill in the cooling art at the time the invention was made to utilize the foldable engaging arms as taught by Lee with

the invention of Wang et al, in order to improve the connection between adjacent fins (Column 1, Lines 56-67 of Lee).

With respect to claim 2, Lee teaches (Fig. 2) engaging arms (13,14) having a Y-shaped, is integrally extended from said peripheral edge of said plate body (10), wherein said engaging head portion (130,140) of each of said engaging arms (13,14) forms as two engaging wings adapted to engage with said root portion of said another engaging arms (13,14) so as to substantially mount said heat dissipating members with each other.

With respect to claim 3, Lee teaches (Fig. 2) two engaging wings, symmetrically identical, wherein each of said engaging wings is bent 90 degrees with respect to said root portion of said engaging arms (13,14) to engage with said root portion of another said corresponding engaging arms (13,14) at said peripheral edge of said plate body (10) (Column 1, Line 64-67).

With respect to claim 4, Lee teaches (Fig. 2) a folding arm which is integrally extended from said peripheral edge of said plate body (10) and is arranged to downwardly fold to overlap on said folding arm of another said heat dissipating member so as to enhance a contacting area between said heat dissipating members for dissipating said heat from said computer (Column 1, Line 64-67).

With respect to claim 5, Lee teaches (Fig. 1,2) folding arms downwardly bent 90 degrees to transversely extended from said heat dissipating surface of said plate body (10) to overlap on said folding arm of another said heat dissipating member (Column 1, Line 64-67).

With respect to claim 10-13, Wang et al. teaches (Fig. 2,3) heat guiding channels (3,4) of said heat dissipating members (2) are aligned to form an elongated heat conducting conduit for communicatively guiding said heat throughout said heat dissipating surfaces of said plate bodies when said heat dissipating members (2) are mounted with each other.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Horng et al. (US PN 650529 B1), Horng et al. (US PN 6651733 B1), McMahan et al. (US PN 6359780 B1), Kung et al. (US PN 6229701 B1), Chang et al. (US PN 6474407 B1), Hsu (US PN 6644386 B1), Xie (US PN 6563703 B2), Ellsworth, Jr. et al. (US PN 6684501 B2), Wang et al. (US PN 6607028 B1), and Huang et al. (US PN 6340056 B1) show the general state of the art regarding heat sinks with heat dissipating members and fins.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ingrid Wright whose telephone number is (571) 272-8392. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2800, ext 35. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IDW



ANATOLY VORTMAN
PRIMARY EXAMINER